

#2

OIPE

## RAW SEQUENCE LISTING

DATE: 08/10/2001

PATENT APPLICATION: US/09/919,197

TIME: 08:04:44

Input Set : A:\ISPH-593\_Seq\_ASCII.txt

Output Set: N:\CRF3\08102001\I919197.raw

3 &lt;110&gt; APPLICANT: Rosanne M. Crooke

4 Mark J. Graham

7 &lt;120&gt; TITLE OF INVENTION: ANTISENSE MODULATION OF SHORT HETERODIMER PARTNER-1

## EXPRESSION

9 &lt;130&gt; FILE REFERENCE: ISPH-0593

C--&gt; 11 &lt;140&gt; CURRENT APPLICATION NUMBER: US/09/919,197

C--&gt; 11 &lt;141&gt; CURRENT FILING DATE: 2001-07-31

11 &lt;160&gt; NUMBER OF SEQ ID NOS: 89

13 &lt;170&gt; SOFTWARE: FastSEQ for Windows Version 4.0

15 &lt;210&gt; SEQ ID NO: 1

16 &lt;211&gt; LENGTH: 20

17 &lt;212&gt; TYPE: DNA

18 &lt;213&gt; ORGANISM: Artificial Sequence ✓

20 &lt;220&gt; FEATURE:

21 &lt;223&gt; OTHER INFORMATION: Antisense Oligonucleotide ✓

23 &lt;400&gt; SEQUENCE: 1

24 tccgtcatcg ctctcaggg

20

26 &lt;210&gt; SEQ ID NO: 2

27 &lt;211&gt; LENGTH: 20

28 &lt;212&gt; TYPE: DNA

29 &lt;213&gt; ORGANISM: Artificial Sequence ✓

31 &lt;220&gt; FEATURE:

32 &lt;223&gt; OTHER INFORMATION: Antisense Oligonucleotide ✓

34 &lt;400&gt; SEQUENCE: 2

35 atgcattctg cccccaagga

20

37 &lt;210&gt; SEQ ID NO: 3

38 &lt;211&gt; LENGTH: 1456

39 &lt;212&gt; TYPE: DNA

40 &lt;213&gt; ORGANISM: Homo sapiens

42 &lt;220&gt; FEATURE:

43 &lt;221&gt; NAME/KEY: exon

44 &lt;222&gt; LOCATION: (1)...(531)

46 &lt;221&gt; NAME/KEY: intron

47 &lt;222&gt; LOCATION: (532)...(849)

49 &lt;221&gt; NAME/KEY: exon

50 &lt;222&gt; LOCATION: (850)...(1091)

52 &lt;221&gt; NAME/KEY: polyA\_signal

53 &lt;222&gt; LOCATION: (1428)...(1433)

55 &lt;400&gt; SEQUENCE: 3

56 tgagcaccag ccaaccagg gcttgcccat gccagggagc tgcaagccgc cccgccattc 60

57 tctacgcact tctgagctcc agcctcaagg ctgtcccccg accccgtagc cgctgcctat 120

58 gtaggcagca cgggcccgtc cagctatgtg caccctatcg caccctgccc gaggccttgg 180

59 atgttctggc caagacagtg gccttcctca ggaacctgcc atccttcttg cagctgcctc 240

60 cccaggacca gcggcggtg ctgcagggtt gctggggccc cctcttcttg cttgggttgg 300

61 cccaagatgc tgtgaccttt gaggtggctg agggcccggt gccagcata ctcaagaaga 360

62 ttctgctgga ggagcccagc agcagtggag gcagtggcca actgccagac agaccccagc 420

63 cctccctggc tgcggtgcag tggcttcaat gctgtctgga gtcttcttg agcctggagc 480

64 ttagcccca ggaatatgcc tgctgaaag ggaccatcct cttcaacccc gataaagaaa 540

ENTERED

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65 ctgaagccca gagattaagt gacttgccca aggtcaccca gctaataagt gacagtgtg 600
66 ggattcatac ccaggaagcc taattcttaa ccattactcc acactgcctc ttcataaatg 660
67 gatggatgaa tacattgaaa attgataaat aaattacctc ctctaaagga ggaggtagta 720
68 gtgggacctc aaaggccgag caaaggaggc agaggggtgt ctctgatggc ccagatcttg 780
69 ggccagtctt gtcccttggg ggtctggagt aggggtgtca ccagccctct tctccctctc 840
70 tgcccacaga tgtgccaggc ctccaagccg cctcccacat tgggcacctg cagcaggagg 900
71 ctcaactgggt gctgtgtgaa gtccctggaac cctgggtgcc agcagcccaa ggccgcctga 960
72 cccgtgtcct cctcacggcc tccacctca agtccattcc gaccagcctg cttggggacc 1020
73 tcttctttcg cctatcatt ggagatgttg acatcgctgg ccttcttggg gacatgcttt 1080
74 tgctcaggtg acctgttcca gccaggcag agatcaggtg ggcagaggct ggcagtgtg 1140
75 attcagcctg gccatcccca gaggtgaccc aatgctcctg gaggggcaag cctgtataga 1200
76 cagcacttgg ctcccttagga acagctcttc actcagccac accccacatt ggacttcctt 1260
77 ggtttggaca cagtgtctca gctgcctggg aggttttgg tggccccac agcctctggg 1320
78 ccaagactcc tgtcccttct tgggatgaga atgaaagctt aggtgtgctta ttggaccaga 1380
79 agtccatcgt accttatata gaactgaatt aagttattga tttttgtaat aaaaggtatg 1440
80 aaacactaaa aaaaaa 1456
82 <210> SEQ ID NO: 4
83 <211> LENGTH: 20
84 <212> TYPE: DNA
85 <213> ORGANISM: Artificial Sequence ✓
87 <220> FEATURE:
88 <223> OTHER INFORMATION: PCR Primer ✓
90 <400> SEQUENCE: 4
91 gctatgtgca cctcatcgca 20
93 <210> SEQ ID NO: 5
94 <211> LENGTH: 20
95 <212> TYPE: DNA
96 <213> ORGANISM: Artificial Sequence ✓
98 <220> FEATURE:
99 <223> OTHER INFORMATION: PCR Primer ✓
101 <400> SEQUENCE: 5
102 gaggaaggcc actgtcttgg 20
104 <210> SEQ ID NO: 6
105 <211> LENGTH: 22
106 <212> TYPE: DNA
107 <213> ORGANISM: Artificial Sequence ✓
109 <220> FEATURE:
110 <223> OTHER INFORMATION: PCR Probe ✓
112 <400> SEQUENCE: 6
113 ctgccgggag gccttgatg tt 22
115 <210> SEQ ID NO: 7
116 <211> LENGTH: 19
117 <212> TYPE: DNA
118 <213> ORGANISM: Artificial Sequence ✓
120 <220> FEATURE:
121 <223> OTHER INFORMATION: PCR Primer ✓
123 <400> SEQUENCE: 7
124 gaaggtgaag gtcggagtc 19
126 <210> SEQ ID NO: 8

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Input Set : A:\ISPH-593\_Seq\_ASCII.txt

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127 <211> LENGTH: 20
128 <212> TYPE: DNA
129 <213> ORGANISM: Artificial Sequence ✓
131 <220> FEATURE:
132 <223> OTHER INFORMATION: PCR Primer ✓
134 <400> SEQUENCE: 8
135 gaagatggtg atgggatttc 20
137 <210> SEQ ID NO: 9
138 <211> LENGTH: 20
139 <212> TYPE: DNA
140 <213> ORGANISM: Artificial Sequence ✓
142 <220> FEATURE:
143 <223> OTHER INFORMATION: PCR Probe ✓
145 <400> SEQUENCE: 9
146 caagcttccc gttctcagcc 20
148 <210> SEQ ID NO: 10
149 <211> LENGTH: 1119
150 <212> TYPE: DNA
151 <213> ORGANISM: Mus musculus
153 <220> FEATURE:
154 <221> NAME/KEY: CDS
155 <222> LOCATION: (33)...(815)
157 <400> SEQUENCE: 10
158 agctggaag aaacaggaac aagatactaa cc atg agc tcc ggc cag tca ggg 53
159 Met Ser Ser Gly Gln Ser Gly
160 1 5
162 gtc tgc cca tgc cag ggc tct gca ggt cgt ccg act att ctg tat gca 101
163 Val Cys Pro Cys Gln Gly Ser Ala Gly Arg Pro Thr Ile Leu Tyr Ala
164 10 15 20
166 ctt ctg agc ccc agc ccc agg acc agg ccc gtt gca cct gca tct cac 149
167 Leu Leu Ser Pro Ser Pro Arg Thr Arg Pro Val Ala Pro Ala Ser His
168 25 30 35
170 agc cac tgc ctg tgc cag cag cag cgg cct gtg cgt ctg tgt gct ccg 197
171 Ser His Cys Leu Cys Gln Gln Arg Pro Val Arg Leu Cys Ala Pro
172 40 45 50 55
174 cac cgc acc tgc agg gag gcc ttg gat gtc cta gcc aag aca gta gcc 245
175 His Arg Thr Cys Arg Glu Ala Leu Asp Val Leu Ala Lys Thr Val Ala
176 60 65 70
178 ttc ctc agg aac ctg ccg tcc ttc tgc cac ctg ccc cat gag gat cag 293
179 Phe Leu Arg Asn Leu Pro Ser Phe Cys His Leu Pro His Glu Asp Gln
180 75 80 85
182 cgg cgg ctg cta gag tgc tgc tgg ggc cct ctc ttc ctg ctt ggg ttg 341
183 Arg Arg Leu Leu Glu Cys Cys Trp Gly Pro Leu Phe Leu Leu Gly Leu
184 90 95 100
186 gcc cag gat gct gtg acc ttc gag gtg gct gag gct ccg gtg ccc agt 389
187 Ala Gln Asp Ala Val Thr Phe Glu Val Ala Glu Ala Pro Val Pro Ser
188 105 110 115
190 ata ctt aag aag atc ctg cta gag gaa gcc agc agc ggt acc cag ggt 437
191 Ile Leu Lys Lys Ile Leu Leu Glu Glu Ala Ser Ser Gly Thr Gln Gly

```

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```

192 120          125          130          135
194 gcc cag cca tca gac cgg cca caa ccc tca ctg gct gca gtt cag tgg 485
195 Ala Gln Pro Ser Asp Arg Pro Gln Pro Ser Leu Ala Ala Val Gln Trp
196          140          145          150
198 ctg cag cgc tgc ctg gag tct ttc tgg agc ctt gag ctg ggt ccc aag 533
199 Leu Gln Arg Cys Leu Glu Ser Phe Trp Ser Leu Glu Leu Gly Pro Lys
200          155          160          165
202 gag tat gcg tac ctg aag ggc acg atc ctc ttc aac cca gat gtg cca. 581
203 Glu Tyr Ala Tyr Leu Lys Gly Thr Ile Leu Phe Asn Pro Asp Val Pro
204          170          175          180
206 ggc ctc cgt gcc tcc tgc cac atc gca cac ctg caa cag gag gct cac 629
207 Gly Leu Arg Ala Ser Cys His Ile Ala His Leu Gln Gln Glu Ala His
208          185          190          195
210 tgg gca ctg tgt gaa gtc ttg gag ccc tgg tac cca gcc agc caa ggc 677
211 Trp Ala Leu Cys Glu Val Leu Glu Pro Trp Tyr Pro Ala Ser Gln Gly
212 200          205          210          215
214 cgc ctg gcc cga atc ctc ctc atg gcc tct acc ctc aag aac att cca 725
215 Arg Leu Ala Arg Ile Leu Leu Met Ala Ser Thr Leu Lys Asn Ile Pro
216          220          225          230
218 ggc acc ctt ctg gta gat ctc ttc ttc cgc cct atc atg gga gac gtt 773
219 Gly Thr Leu Leu Val Asp Leu Phe Phe Arg Pro Ile Met Gly Asp Val
220          235          240          245
222 gac atc act gaa ctc ctt gaa gac atg ctt ttg ctg agg tga 815
223 Asp Ile Thr Glu Leu Leu Glu Asp Met Leu Leu Leu Arg
224          250          255          260
226 cccgtggaat ggagtctggt gcctccaaag gggagcctga aaggcagccc tcaactcccc 875
227 tggagctgcc ctacgctcag ccacaccct agctcggact tccttgcttt ggatacagtg 935
228 tacactacta actgtccagc aagcccttga tgactcccca aacctccagg ccaaaatgtc 995
229 tttccctgcc tgggtaggga tgggagcagg aagctgtact ttcaagccag aatccctcct 1055
230 gactttgtac agaactaaat taagttattg ttttttgtaa taaaacatat gacctcctga 1115
231 aaaa 1119
233 <210> SEQ ID NO: 11
234 <211> LENGTH: 19
235 <212> TYPE: DNA
236 <213> ORGANISM: Artificial Sequence ✓
238 <220> FEATURE:
239 <223> OTHER INFORMATION: PCR Primer ✓
241 <400> SEQUENCE: 11
242 ctcctgccac atcgcacac 19
244 <210> SEQ ID NO: 12
245 <211> LENGTH: 20
246 <212> TYPE: DNA
247 <213> ORGANISM: Artificial Sequence ✓
249 <220> FEATURE:
250 <223> OTHER INFORMATION: PCR Primer ✓
252 <400> SEQUENCE: 12
253 accagggctc caagacttca 20
255 <210> SEQ ID NO: 13
256 <211> LENGTH: 25

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Input Set : A:\ISPH-593\_Seq\_ASCII.txt

Output Set: N:\CRF3\08102001\I919197.raw

257 <212> TYPE: DNA  
 258 <213> ORGANISM: Artificial Sequence ✓  
 260 <220> FEATURE:  
 261 <223> OTHER INFORMATION: PCR Probe ✓  
 263 <400> SEQUENCE: 13  
 264 caacaggagg ctactgggc actgt 25  
 266 <210> SEQ ID NO: 14  
 267 <211> LENGTH: 20  
 268 <212> TYPE: DNA  
 269 <213> ORGANISM: Artificial Sequence ✓  
 271 <220> FEATURE:  
 272 <223> OTHER INFORMATION: PCR Primer ✓  
 274 <400> SEQUENCE: 14  
 275 ggcaaattca acggcacagt 20  
 277 <210> SEQ ID NO: 15  
 278 <211> LENGTH: 20  
 279 <212> TYPE: DNA  
 280 <213> ORGANISM: Artificial Sequence ✓  
 282 <220> FEATURE:  
 283 <223> OTHER INFORMATION: PCR Primer ✓  
 285 <400> SEQUENCE: 15  
 286 gggctctcgt cctggaagat 20  
 288 <210> SEQ ID NO: 16  
 289 <211> LENGTH: 27  
 290 <212> TYPE: DNA  
 291 <213> ORGANISM: Artificial Sequence ✓  
 293 <220> FEATURE:  
 294 <223> OTHER INFORMATION: PCR Probe ✓  
 296 <400> SEQUENCE: 16  
 297 aaggccgaga atgggaagct tgatcatc 27  
 299 <210> SEQ ID NO: 17  
 300 <211> LENGTH: 20  
 301 <212> TYPE: DNA  
 302 <213> ORGANISM: Artificial Sequence ✓  
 304 <220> FEATURE:  
 305 <223> OTHER INFORMATION: Antisense Oligonucleotide ✓  
 307 <400> SEQUENCE: 17  
 308 ccctggttgg ctggtgctca 20  
 310 <210> SEQ ID NO: 18  
 311 <211> LENGTH: 20  
 312 <212> TYPE: DNA  
 313 <213> ORGANISM: Artificial Sequence ✓  
 315 <220> FEATURE:  
 316 <223> OTHER INFORMATION: Antisense Oligonucleotide ✓  
 318 <400> SEQUENCE: 18  
 319 gcttgcagct ccctggcatg 20  
 321 <210> SEQ ID NO: 19  
 322 <211> LENGTH: 20  
 323 <212> TYPE: DNA

VERIFICATION SUMMARY

DATE: 08/10/2001

PATENT APPLICATION: US/09/919,197

TIME: 08:04:45

Input Set : A:\ISPH-593\_Seq\_ASCII.txt

Output Set: N:\CRF3\08102001\I919197.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date